Appl. No. 10/509,457
Amdt. Dated October 5, 2006
Reply to Office Action of July 5, 2006

<u>Listing of Claims:</u>

1. (Currently Amended)   A method of determining a corresponding image for ⟶ Deleted: Previously Presented

a reference image from an image sequence of a moving object by means of a first and a
second motion signal, in which

- the first and the second motion signal represent the respective variation in time
of the states of motion of a first motion and a second motion of the object,

- the image sequence represents the first motion of the object as a sequence of
images of states of motion,

- the reference image represents a state of motion from the second object motion
and is acquired at a reference instant during the second motion of the object, including
the following steps:

a. examining ~~determining a similarity function by way of a similarity~~ ⟶ Formatted: Strikethrough
~~comparison of~~ the first and the second motion signal for similarities, to determine a
similarity function,

b. ~~determining~~ calculating a correspondence instant in the first motion
signal by means of the similarity function, the correspondence instant corresponding to
the acquisition instant of the reference image from the second motion signal, and

c. ~~determining~~ defining the corresponding image by identification, ~~using~~ ⟶ Formatted: Strikethrough
~~the first motion signal, that imag~~e of the image sequence whose acquisition instant
corresponds at least approximately to the correspondence instant,

          wherein the corresponding image represents at least approximately that
state of motion of the moving object which is represented in the reference image.

2. (Currently Amended)   A method as claimed in claim 1, wherein the
similarity function is obtained by means of ~~the so-called~~ a dynamic time warping
method.

3. (Previously Amended)   A method as claimed in claim 1, wherein an
interpolation image is formed from the corresponding image and a further image from
the image sequence, which interpolation image represents at least substantially the state

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of motion of the object at the correspondence instant.

4. (Previously Amended)   A method as claimed in claim 1, wherein the first and the second motion signal from an electrocardiographic signal and that the images of the image sequence and the reference image represent states of motion of a human or animal heart.

5. (Previously Amended)   A method as claimed in claim 4, wherein the blood vessels of the heart are filled at least partly with a contrast medium either in images of the image sequence or in the reference image.

6. (Previously Amended)   A method as claimed in claim 1, wherein the image sequence forms an X-ray image sequence and/or the reference image forms an X-ray image.

7. (Previously Amended)   A method as claimed in claim 1, wherein the image sequence and/or the reference image forms an ultrasound image.

8. (Currently Amended)   A system which includes a data processing unit for ~~determining~~ defining a corresponding image of a moving object for a reference image from an image sequence by means of a first and a second motion signal, the data processing unit being arranged to carry out a method as claimed in claim 1.

9. (Previously Presented)   An examination apparatus which includes an X-ray image detector and means for the detection of electrocardiographic signals, which apparatus includes a system as claimed in claim 8.

10. (Previously Amended)   A computer-readable storage medium storing a program for causing a computer to perform having instructions for carrying out a method as claimed in claim 1.

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